

Kentucky Teacher

Department Revamps KIRIS Investigative Process

By Lisa Y. Gross
Kentucky Department of Education

Local school districts are no longer responsible for handling allegations of misconduct in administering the high-stakes Kentucky Instructional Results Information System (KIRIS), thanks to a revamp of the process for investigating allegations.

The Department of Education developed the new investigative procedure with assistance from four school district superintendents: Leon Mooneyhan of Shelby County, Kay Freeland of Rowan County, Sonny Fentress of Anderson County and Blake Haselton of Oldham County. Mooneyhan said the changes were "a step that needed to be taken" to ensure confidence and credibility in the test.

The department now will handle all investigative tasks, turning allegations over to staff in the Division of Management Assistance in the Bureau of Management Support Services. That staff will follow standard investigative guidelines for dealing with allegations of misconduct.

"Most teachers and administrators want to do the right thing," said Education Commissioner Bill Cody. "I don't believe misconduct is widespread, but our priority has always been to treat allegations very seriously. This revamped process will ensure that any allegation will be investigated completely."

The investigative process will move as follows:

- Staff in the division will investigate any allegation — anonymous or not — and make reports to the KIRIS Board of Review, which will review the findings and make a report to the commissioner of education. Local school districts will participate in the investigative process as needed.

- The commissioner will make the final determination and notify the school district superintendent and board chairperson of the findings. The commissioner also will notify the Education Professional Standards Board of his decision.

- Within 45 days, the district will report whether or not disciplinary action against any employees was taken or considered necessary.

- If the decision is to invalidate or change scores, the commissioner will direct the deputy commissioner of the Bureau of Learning Results Services to make appropriate adjustments to a school's scores.

This new process moves KIRIS investigation activities from the Bureau of Learning Results Services, which administers the KIRIS tests and oversees the school accountability program.

New Contracts for KIRIS Nearing Completion

New contracts for management of the Kentucky Instructional Results Information System (KIRIS), made necessary by the termination of a contract with the state's main testing contractor, should be in place in early September. At press time for this publication, contracts were not final. However, Department of Education officials emphasized that the process remains on track for the release of 1996-97 test results this fall and for testing in the spring of 1998.

Education Commissioner Bill Cody terminated the contract with the lead testing contractor, Advanced Systems in Measurement and Evaluation (ASME), after department staff discovered inaccuracies in ASME's reporting of scores

for elementary and middle schools. Since deciding to terminate that contract, department officials have been working to establish contracts with several ASME subcontractors who were doing more than half of the work on KIRIS test development and scoring. These contractors are very familiar with the demands of Kentucky's programs and committed to delivering high-quality work, department officials said.

The department now plans to release KIRIS scores for 1996-97 in November. In accordance with state law, KIRIS tests will again be given in the spring of 1998 in grades 4, 5, 7, 8 and 11 for Accountability Cycle 3, with results to be reported to schools next fall.



Photo by Rick McComb

GOING 'HYPER'

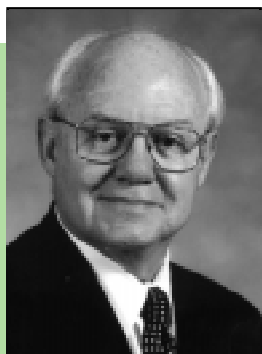
Vertis Parks (left), a student technology leader in the Covington Independent district, demonstrated Hyper Studio software for Gale Watson, formerly a computer network technician at Kenton County Schools. The demonstration was part of the Student Showcase at last school year's Kentucky Education Technology Conference. See Pages 5-12 in this issue for news about technology in Kentucky schools.

Kentucky a Finalist for National Award

Kentucky's education reform initiative is one of 25 finalists for the 1997 Innovations in American Government Awards. Each finalist will receive a \$20,000 grant from the Ford Foundation and compete for a total grant of \$100,000 to be awarded to each of 10 winners in October.

Kentucky's entry, "Recreating Public Education for Results," detailed how the Kentucky Education Reform Act was created in 1990, how it has been sustained over the past seven years and how it could be replicated in other states.

The Ford Foundation's Innovations in American Government Award is administered by Harvard University's Kennedy School of Government in partnership with the Council for Excellence in Government.



Commissioner's Comment

By Wilmer S. Cody, Commissioner of Education

Self-Reliance Is the Key to Learning About — and With — Computers

All of Kentucky's 176 school districts and 1,000 of its 1,371 public schools now have direct, high-speed connections to the Internet. More schools are coming online every month. Education technology, for so long a consideration for the future, is here now. Thousands of educators and students use the Internet every day for administration, communication, research, teaching and learning. Those who don't are missing important opportunities.

Many successful districts and schools have made technology a budgeting, instructional and professional development priority. But even in schools that have not embraced computers and networking, teachers can do much to enhance their own technology skills. The key is initiative: taking personal responsibility for individual professional growth. Educators who take the initiative don't wait for someone to schedule a professional development session. They watch for opportunities — or they create them by including technology in their individual growth plans.

A shining example comes from the Middlesboro Independent school district, where the entire school board initiated sessions with the district technology coordinator to learn about computers, software, the Internet and e-mail. They made it their business to find out what they needed to know to make effective decisions.

Hundreds of teachers are just as creative, just as determined to learn what they need to know to excel in the classroom. If you're committed to learning about technology, consider setting a course that takes you through this progression:

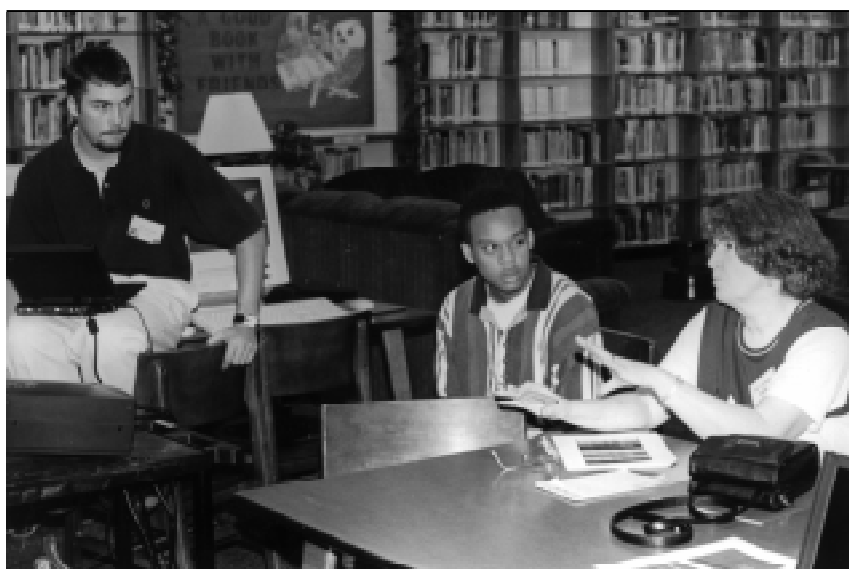
1. BASIC SKILLS — Get comfortable with computers through hands-on experience with various kinds of hardware and software. Your school or district technology coordinator or library media specialist can help. Your own students may be the best source of practical, hands-on know-how!

2. INTEGRATION SKILLS — Learn ways to link your new computer skills to your curriculum area of expertise. In science, for example, consider how your students can exchange ideas with the Mars exploration team by e-mail. Find training opportunities that match your own learning style and level of technology expertise. Ken-

tucky has more than 120 instructional technology leaders available to help you.

3. LEADERSHIP SKILLS — Use what you've learned to teach others about technology. Create or support technology professional development opportunities that support your school's or district's instructional goals and objectives.

How can teachers acquire and sharpen the skills at these three levels? Take advantage of technology workshops and conferences, most notably the annual Kentucky Education Technology Conference. Remember that professional development in



West Jessamine High School teacher Pat Latham describes classroom computer problems so students J.D. Archer (left) and Charles Ross can help her come up with solutions. Throughout the state, students are dependable resources for technology training and assistance.

technology doesn't have to be labeled "technology training." It can be any opportunity that demonstrates the integration of technology into teaching and learning. For example, an effective workshop on innovative approaches to mathematics instruction — or any other content area — will include a component on how technology can support that instruction.

Some of the most effective professional development happens right in the classroom, with teachers and their students learning from visiting teachers, knowledgeable students, technology-savvy parents or other members of the community.

If you work in a school not yet connected to KETS, I encourage you to initiate action toward network access. (See Page 11 for more information.) Team up with other teachers to get the message across to local decision makers: technology is a tool you and your students need to meet expectations.

If funding is holding you and your school back, ask your principal to e-mail a message to me, including his or her name and mailing address. I'll send a copy of "From Here to Technology: How to Fund Hardware, Software and More," published by the American Association of School Administrators.

Education reform gives teachers the tools and the decision-making roles they need to chart their own professional development course. Those who seize the opportunity will benefit professionally. Even more significantly, their students will benefit academically. In Kentucky, part of our mission in education is to develop students who take more responsibility for their own learning. Can we expect any less of ourselves?

Editor's Notes:

E-mail Commissioner Cody at wcody@kde.state.ky.us or through the KETS network's global address list.

Pages 5-12 of this issue contain information about many of the resources and opportunities mentioned on this page. Also see Page 6 for ways teachers can be involved in planning for technology and related professional development through a new approach to district and school planning.

Photo by Faun S. Fishback

Wind for a Dragon

By the 6th-Grade Class of Barbara Creasy
Kentucky School for the Blind

Did you know that reading and talking are not the only important ways that we humans can communicate? Here at the Kentucky School for the Blind, we also communicate by touching and feeling things. We invited artists to create sculptures for us to experience. Their art made us wonder, question and use our senses in different ways.

Sandy Watts (one of the invited artists) made "The Cage." It was fun to pretend to be an animal in the cage. Jason said, "With the wheels, you could move around, but you were still restricted by the bars. We have freedoms even when we're put into a cage. The artist did it this way to show that even though we are restricted by our vision problems, we can still do things others can do."

Hey! What's that? Is it a fish? A dragon? Perhaps a really weird coat rack? No, it was "Plectosaurus," a

large metal fish made by Daniel Evans (an artist and an employee at the school). The rib bones moved by swinging from side to side while the spiked tail moved back and forth like a fish swishing its tail.

Even if you couldn't see, you couldn't miss the "Ice Sculpture." Chunks of ice with pieces of broken Plexiglas frozen inside hung over a row of tunnels. The tunnels looked like giant icicles suspended from the ceiling. As the ice melted, the Plexiglas pieces fell through the tunnels and made noises. The smaller pieces and tunnels made high-pitched, tinkly noises. The larger pieces made low-pitched thuds. The water dripping and the Plexiglas falling sounded like a hail-storm.

We were inspired by these sculptures and decided to try to communicate through our own sculpture creations! We invented two types: ice sculptures and wind-

(Continued on Page 4)

Editor's Note: Barbara Creasy's students often communicate through touch. Last year's 6th-grade class invited artists to create sculptures that would cause them to "wonder, question, and use our senses in different ways." The students then created their own sculptures and wrote about their experiences for the March/April issue of Dragonfly. Their article, "Wind for a Dragon," is reprinted here with permission from the authors and the magazine's publisher. For more about Dragonfly, see Page 4.

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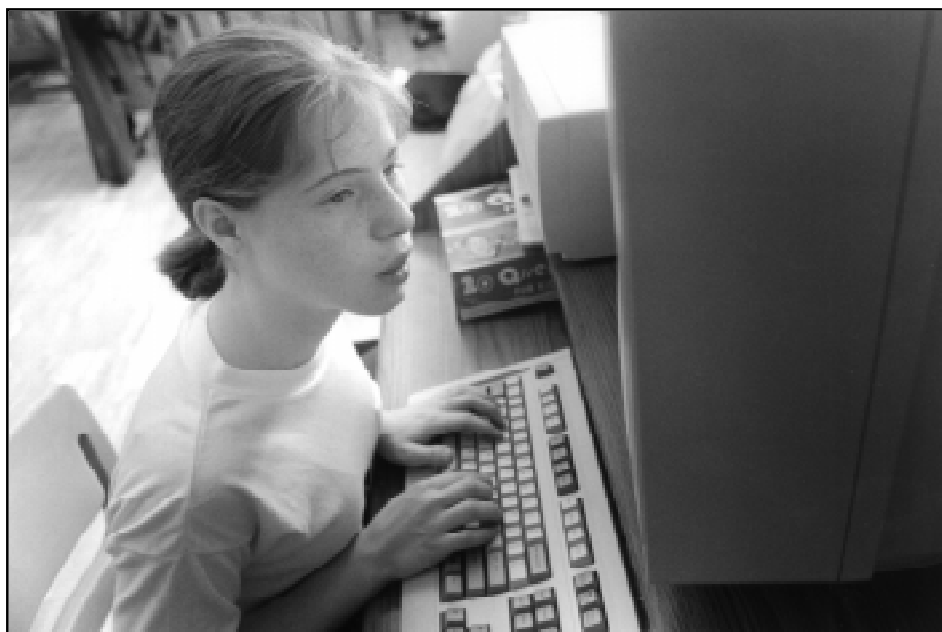


Photo by Rick McComb

Teacher Barbara Creasy guides students writing "Wind for a Dragon" at the Kentucky School for the Blind in Louisville.

Wind for a Dragon

(Continued from Page 3)



Ashley Courts, age 12, uses a computer to write at the Kentucky School for the Blind.

Our Ice Sculptures

We decided to make multilevel sculptures, with each level smaller than the previous one. We planned what shapes to use, then bent strips of cardboard into the shapes.

We froze pebbles in cups of water and hung the pebbly ice chunks above the sculptures. Then we inserted sticks, rods or metal wire through the sculptures so that when the ice melted and the pebbles fell, they would hit something. That's how we created the noise.

Robert said: "The higher up the structure was, the longer the sound of the dripping and bouncing. Mine was really tall. I had a first level, then a smaller level, then an even smaller level, all circles, like a castle." It was challenging, but we had a lot of fun making these sculptures.

Windmills

We divided into groups to make wind sculptures using foam-board

pieces. Before we began, we talked about what we thought the pieces looked like. Some pieces were rectangles, some horseshoe shapes, and some were just weird.

We experimented by tying the pieces together at different angles. Our windmills needed to have a part that moved with the wind. We wondered, "How would we get it to spin?" The part had to be balanced and light enough for the wind to move it. To get this right, we studied wind and experimented with windmills and sailboats. We even made and used a tool called an anemometer, which measures wind speed.

Ashley, Lindsey and Abby found a shape that was like a girl's head. Ashley said, "Since we all really like music, let's make a Walkman for her." They used a piece of wire for the headphones and even added earrings made of shiny purple paper to complete their windmill sculpture.

In another group, Joey, who has sight, said that sometimes he had to think about how to explain what he

About Dragonfly . . .

Dragonfly is a theme-based, inquiry-driven science and language arts magazine for children in upper elementary and lower middle grades. The publication is a joint effort of Miami University and the National Science Teachers Association with funding from the National Science Foundation. Bimonthly during the school year, Dragonfly publishes science investigations, poetry, autobiographies, essays, short stories, artwork and other creative expressions by children and adult researchers.

"Dragonfly gives voice to children's investigations and regards children as authentic investigators with valid questions about the world," says Editor-in-Chief Chris Myers, professor of interdisciplinary studies at Miami University in Ohio. "Dragonfly also gives children the opportunity to interact directly with well-known researchers, sharing their own investigations and the process of discovery." Other central goals of the project, he said, are to incorporate language arts and to involve minority and at-risk children in science.

A pull-out Dragonfly Home Companion invites parents to join in their children's explorations. The Dragonfly Teacher's Companion offers practical ideas for teachers. Supplemental student activities and discussion lists are available on DragonflyNet at <http://www.MUOhio.edu/Dragonfly/> on the World Wide Web.

To subscribe or receive a free sample issue of Dragonfly, call (800) 722-NSTA. For other information, contact Jamie Bercaw (e-mail bercawj@muohio.edu) or Lynne Myers (e-mail myerslb@muohio.edu). Both may be reached by mail at Miami University, Oxford, Ohio 45056; by phone at (513) 529-8576; or by fax at (513) 529-8574. Myers can provide guidelines for students or classes wishing to submit articles.



meant to Sherrill, who is totally blind. Together, they made a basketball goal. Sherrill used wire to shape a rim for the goal. Then they painted it. Sherrill said that although she had played basketball in gym, she didn't understand how the goal worked until they made the windmill sculpture.

Jason and Joseph made a wind

dragon. "The dragon's head and tail spun by catching the wind, and his whole body moved in a big circle. We used dowel rods to make it spin," said Jason.

Communication can happen in many ways — with our speech, our hands, our touch, our ears and our minds.



Technology Links Teachers to *All* Students

By Faun S. Fishback and Fran Salyers
Kentucky Department of Education

When it comes to learning, one size doesn't fit all. Any teacher with more than a few weeks' tenure in the classroom recognizes that what excites one student doesn't even get the attention of another. A teaching strategy that took days to develop makes a difficult concept easy to grasp for some but totally unintelligible for others.

Such is the challenge behind the theory of multiple intelligences, which holds that every child learns best by receiving, reacting to and using information in certain ways. Thomas Armstrong, author of "In Their Own Way," puts it this way: "Every child learns in a style which is a unique combination of the way he sees the world, things that interest him and things that get in the way. ... They're all capable of learning. They just have to be taught in different ways."

In 1983, Harvard psychologist Howard Gardner outlined a theory of seven intelligences that has been accepted by educators nationally. (Please see more information on Pages 8 and 9 in this issue.) Since then, an expanding number of educators have adopted the theory and tailored their teaching to reach all students and have seen

improved learning as a result. Many of the educators have found that technology is one of the most productive tools for doing so.

In Kentucky, library media specialist and school technology coordinator Christine McIntosh is one of those educators. She reports that technology helps students at Bernheim Middle School express themselves and get involved with learning. For example, she says, multimedia-based instructional software and peripherals like probeware, scanners and digital cameras give instruction an "extra boost" to reach all students. Students who have not been academically involved now participate in classwork. And, through technology, those who learn well from lectures and books are expressing what they learn in different ways.

"Technology is the biggest boon for students," she said. "Teachers can present information to students in a variety of ways, and students can present what they've learned to teachers and other students in a variety of ways."

Technology honors multiple intelligences and helps teachers involve more students, she explained, by engaging learners in the ways they learn best. So strong is technology's potential for engaging all students that 60

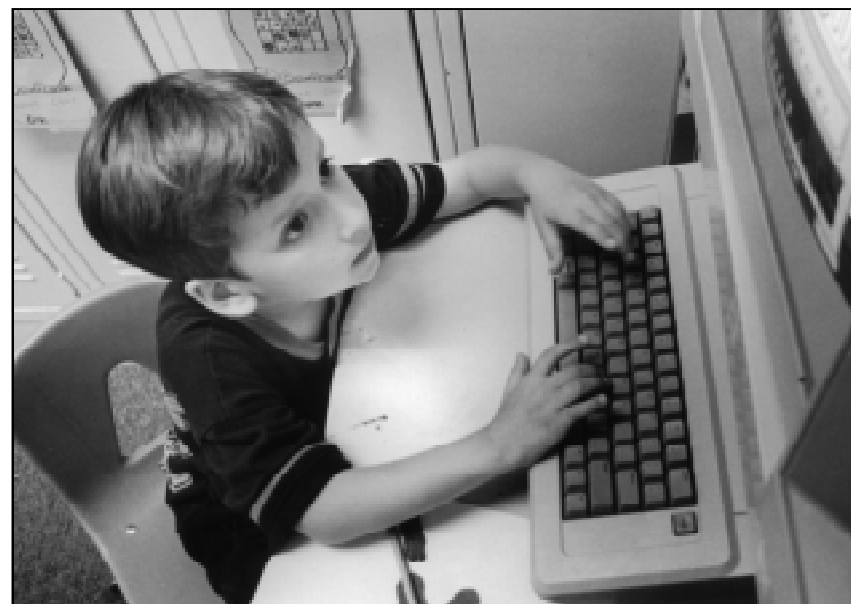


Photo by Rick McComb

KEYS TO LEARNING — Primary student Adam Pontrich uses the computer's keyboard to respond to learning challenges presented by educational software at William Natcher Elementary School in Warren County.

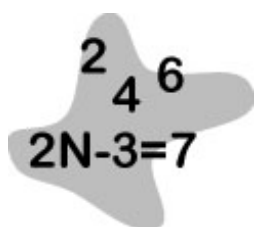
instructional technology leaders spent the summer preparing to help Kentucky's teachers make the most of technology as a multiple-intelligences teaching and learning tool.

Educators have a wealth of resources for information and assistance in this area.

- Reach an instructional technology leader by calling or e-mailing the KETS coordinator at a Department of Education regional service center.
- Check the Department of Education's multiple intelligence web site at www.kde.state.ky.us/mi to find, among other things, a list of electronic

instructional materials that can be purchased with textbook funds.

- Attend the Kentucky Education Technology Conference in March 1998. Multiple intelligences will be a major theme, and numerous sessions and workshops will pertain to using technology to support different learning styles.
- Call state technology consultant Jackie White at (502) 564-7168 or e-mail her at jwhite@kde.state.ky.us on the Internet.
- For more resources, please see Pages 8 and 9 in this issue.



Technology Becomes a 'Big Player' In a New Planning Process

By Sharon Crouch Farmer
Kentucky Department of Education

This year Kentucky educators will, for the first time, use a consolidated planning process in which they will identify student needs first and then draw up budget figures. In the past, the typical approach was to look at dollars first and decide how to spend them.

The new process, says Office of Education Technology associate commissioner Don Coffman, has strong implications for the Kentucky Education Technology System and the way districts and schools make technology decisions. "For the first time," he said, "technology will be a major player in total school and district planning, both as a need to be addressed and as a tool for the planning process itself."

Consolidated planning brings all the players to the table to explore needs, consider options, determine priorities and seek solutions, Coffman explained. "It helps determine where needs overlap and what resources are available. It will significantly improve the way education dollars are applied to meet locally determined needs."

Coffman said the process can lead to combining and using federal, state and local funds in new ways to provide technology for students and teachers. "Some of these funds are federal categorical or specific-use funds that in the past were excluded from overall financial planning because we've been locked into — or locked ourselves into — using the funds in specific, traditional ways."

Coffman said Congress has lowered barriers that once kept categorical funds locked into narrow categories. "It will take some time to realize potential gains," he said, "but we must use federal funds more efficiently and creatively if we are to sustain a modern technology infrastructure for our schools."

Sonia Kohn, director of instruction for Campbell County Schools and a former district and regional technology coordinator, said she welcomes the new process and the opportunities it brings.

"In the past, many technology coordinators were left out of the planning loop," Kohn said. "As a result, schools often had no role in deciding what technology was purchased and no plan for using what was purchased." Past technology planning, she said, was an "inventory process" focused on what technol-



Photo by Rick McComb

THE BIG PICTURE — Brenda Pearson, library media specialist at Muhlenberg County's Longest Elementary, assists students using the school's big-screen monitor and educational software. With consolidated planning, districts and schools can budget for technology that supports local instructional goals.

ogy was on hand and what was still needed. "Now we can move beyond inventory to explore how districts and schools can use technology to improve learning," she said.

Supporting the Process

Technology will not only be a factor in the planning process's needs assessment, but the tool that helps districts and schools develop their plans and apply for federal and state funds needed to put their plans to work. At the request of local districts, the Department of Education is making planning process and application forms available on the Internet.

"All that's needed to run the application is the Internet browser already installed in district offices," said Robin Wolfe Morley, integration services director in the department's Office of Education Technology. "District teams will be able to complete the process online. Schools will download copies of the forms to complete and send to the district office."

A guidebook for the new consolidated planning process will be linked to the application forms and will be accessible at both district and school levels. Help screens and other online resources will answer questions about the application's tools and operations. E-mail will link planners directly to the Department of Education for individual, customized help.

Morley said a focus group of school district administrators has reviewed a prototype of the online consolidated planning application and has given it high marks.

Details about the Kentucky Consolidated Planning Process are available from these sources:

- World Wide Web at <http://kdeweb.kde.state.ky.us/consolidated>
- Page 4 of *Kentucky Teacher*, August 1997
- Debbie McDonald at (502) 564-2116; dmcdonal@kde.state.ky.us; 500 Mero St., Frankfort, KY 40601.





Students Can Be the Teachers for Learning and Using Technology

More Success Stories Students and Teachers as Technology Partners

By **Faun S. Fishback**
Kentucky Department of Education

From a distance, the room looks like any other summer school computer lab. Close up, there's a definite difference. The teacher is 14 years old, and the students are, well, more "mature."

In the technology lab, Josh Shepherd, a 9th-grader, instructs Jessamine County teachers in using PowerPoint software for effective classroom presentations. Many of the "mature" students have no idea what they're doing. Josh can help. When he was in the 7th grade, he wrote the easy-to-understand multimedia manual being used in the class.

In another computer lab, 13-year-old Jessica Owens leads teachers, including her mom, to a variety of search engines for doing research on the Internet. Last year she took the curricula for middle school social studies and found appropriate Web sites students and teachers could use for research.

Across the hall, high school students J.D. Archer and Charles Ross show teachers some of the problems students can inflict on computers and share how to find and correct the problems. In another building, Matt Ryavec, the district's 11th-grade webmaster, is helping teachers and school administrators design Web pages.

These students, all participants in the district's Student Technology Lead-

ership Program (STLP), learn their skills in middle school computer classes (part of the arts and humanities rotation), high school electives and after-school independent studies. Helping at the Jessamine County Educational Technology Conference is one of several outside-of-school jobs for students.

"How do you spell technology relief in Jessamine County? S-T-L-P!" says Carol Utay, district technology coordinator. "STLP members run the network, assist and train teachers, and upgrade computers. The students are excellent trainers, and we work hard to make certain they understand how much we value what they're doing."

For more information about this STLP activity, contact Utay at (606) 885-4179 or cutay@jessamine.k12.ky.us on the Internet.

Mason County Middle School — After-school "Techies" learn computer maintenance, troubleshooting, software applications, Internet research and how to mentor other students in basic technology skills. Contact Judy Kurtz, school technology coordinator, at jkurtz@mason.k12.ky.us or (606) 564-6748.

Kenton County Schools — More than 200 students and teachers come together for a district student technology leadership camp where they work together as co-learners of new skills and refiners of established ones. These skills are put to use throughout the school year as the students train teachers and their peers and support their school network. Contact Vicki Fields, district technology coordinator, at vfields@kenton.k12.ky.us or (606) 344-8888.

Fleming County Schools — High school juniors and seniors can participate in Advanced Computer Repair and Maintenance. Graduates of the course have nearly 100 percent placement in the work force or postsecondary school. Contact Kelley F. Lee, district technology coordinator, at klee@fleming.k12.ky.us or (606) 845-5851.

Jefferson County Schools — Since 1994, selected groups of high school students have been trained to assist at the Computer Education Support Unit in installation of network hardware and software for the district's 130 schools. Recently, student technicians prepared a professional development sequence on Web page construction. Contact Mary Grace Jaeger, Computer Education Support Unit, at mjaeger1@jefferson.k12.ky.us or (502) 485-3010.



Ninth-grader Josh Shepherd (standing) helps Jessamine County teachers develop classroom presentations using PowerPoint software. Josh wrote a multimedia manual for the professional development course.

Photo by Faun S. Fishback

Technology Offers Multiple Approaches to Teaching and Learning

By **Faun S. Fishback**
Kentucky Department of Education

Recognizing that the ability to learn and express learning can be demonstrated in a multitude of ways is the basis of Harvard psychologist Howard Gardner's theory of multiple intelligences. Gardner says all people possess at least seven intelligences. In every individual, some of the intelligences — and maybe only one — are more developed than the others. In other words, people learn best in different ways.

On these pages, the Office of Education Technology's Division of Customer Support Services provides an overview of seven intelligences and identifies the kinds of computer software that are most effective in reaching students in each of the seven learning styles. This information is intended as a starting point. The division encourages teachers interested in the topic to take advantage of related professional development resources. (See "Where to Learn More ...")

Specific software titles on these pages have been approved for purchase using textbook or Kentucky Education Technology System funds. Many other software programs and applications support teaching to the seven multiple intelligences.



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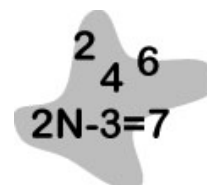
LEARNING STYLE

Linguistic Intelligence
(Word Smart)



uses words effectively, whether orally or written

Logical/Mathematical Intelligence
(Number Smart)



uses numbers effectively and reasons well

Spatial Intelligence
(Picture Smart)



perceives the visual-spatial world accurately and performs transformations upon those perceptions

Bodily/Kinesthetic Intelligence
(Body Smart)



uses whole body to express ideas and feelings; has facility in using hands to produce or transform things

Musical Intelligence
(Music Smart)



perceives, discriminates, transforms and expresses musical forms

Interpersonal Intelligence
(People Smart)



perceives and makes distinctions in the moods, intentions, motivations and feelings of other people

Intrapersonal Intelligence
(Self Smart)



exhibits self-knowledge and the ability to act adaptively on the basis of that knowledge

* Electronic instructional materials approved for purchase with state textbook funds. See

** Software approved for purchase with state Kentucky Education Technology System funds

Source: Kentucky Department of Education Web site (www.kde.state.ky.us/mi/) and Florida Association

THE SEVEN INTELLIGENCES

improve the way you teach to reach all your students.

SOFTWARE SUPPORT	POTENTIAL OCCUPATIONS
word processing, desktop publishing, multimedia authoring, programs with speech output * Living Books ** MicroSoft Word	storyteller, teacher, lawyer, translator, orator, poet, playwright, editor, journalist
database, spreadsheet, problem-solving programming, strategy games, multimedia authoring tools * f(g) Scholar ** MicroSoft Word	mathematician, tax accountant, statistician, scientist, engineer, computer programmer, logician
draw, paint, reading programs with visual clues, multimedia programs with information in charts, maps or ability to do charting * My Own Stories, Timeliner ** ClarisWorks	hunter, scout, guide, interior decorator, architect, artist, inventor
animation; science probeware; keyboarding; word processing; software that also uses joystick, mouse or touch window; programs that allow students to move objects around screen * Sammy's Science House	actor, mime, clown, athlete, dancer, craftsperson, sculptor, mechanic, surgeon
programs that combine stories with songs, reading programs that associate letters/sounds with music, sing-along CD audio disks, videodisk player, barcode * Making Music	choir or orchestra member, disc jockey, composer, performer, music critic
telecommunications, programs that address social issues, group presentations or decision making, games requiring two or more players, TV production * Decisions, Decisions series	counselor, political leader, business person, community organizer
computer-assisted instruction, games with computer as opponent, self-awareness or self-improvement skills, brainstorming or problem solving * Career Match	self-employed, researcher, theorist, philosopher, psychotherapist, religious leader

Department of Education Web site (www.kde.state.ky.us/edtech/EIM) for complete list.
ids. Contact your district technology coordinator for assistance in ordering.

tion for Computers in Education Web site (www.firn.edu/~face/about/dec95/mult_int.html)

Where to Learn More About Technology and Multiple Intelligences

Web Sites

- Kentucky Department of Education: www.kde.state.ky.us/mi/
- KETS software evaluation form: www.kde.state.ky.us/edtech/EIMSEVAL.html

Publications

- “Multiple Intelligences in the Classroom,” by Thomas Armstrong; Association for Supervision and Curriculum Development, 1994
- “The Languages of Learning: How Children Talk, Write, Dance, Draw and Sing Their Understanding of the World,” by Karen Gallas; Columbia University, The Teachers College Press, 1994
- “Seven Ways of Knowing: Teaching for the Multiple Intelligences,” by David Lazear; Skylight Publishing, 1991
- “Seven Ways of Teaching: The Artistry of Teaching With Multiple Intelligences,” by David Lazear; Skylight Publishing, 1991
- “Multiple Intelligences Approaches to Assessment, Solving the Assessment Conundrum,” by David Lazear; Zephyr Press, 1994
- “If the Shoe Fits: How to Develop Multiple Intelligences in the Classroom,” by Carolyn Chapman; Skylight Publishing, 1993

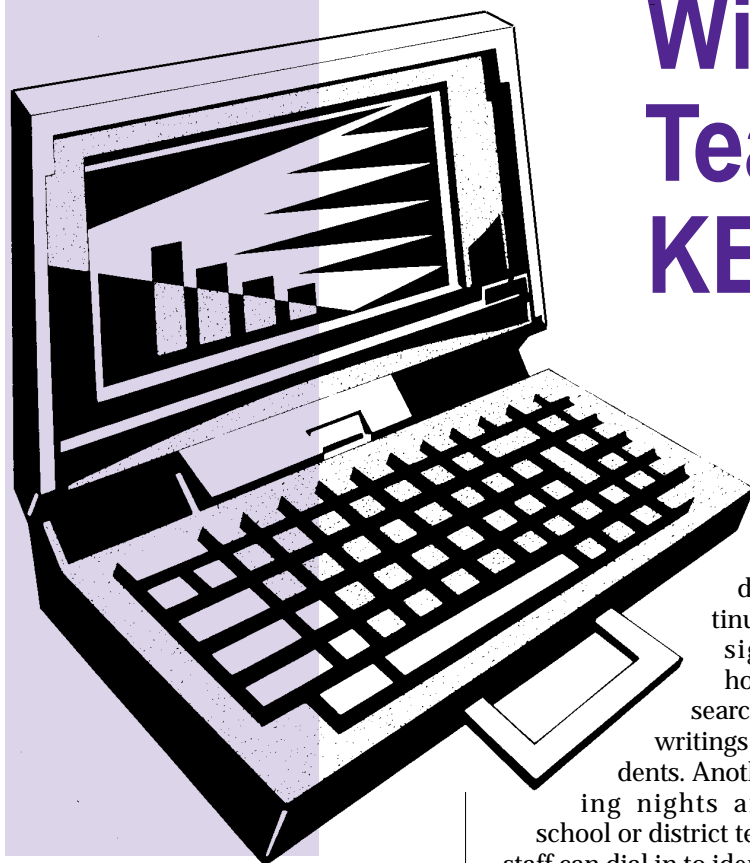
Audio Cassette Tapes

- “Integrating the Curricula With the Multiple Intelligences” presented by Robin Fogarty at the National Staff Development Council 27th Annual Conference. National Cassette Services, fax (540) 636-4240
- “Seven Kinds of Smart” and “Seven Kinds of Teaching,” presentations by Thomas Armstrong at the 1997 Kentucky Education Technology Conference. \$8 each from Kentucky Sound, 809 Glenbarr Place, Louisville, KY 40243; phone (502) 245-3628.

Conference

- Kentucky Education Technology Conference, March 5-8, 1998; emphasis on multiple intelligences in several featured presentations, workshops and interest sessions

If you have difficulty obtaining these or other resources on this topic, e-mail technology consultant Jackie White at jwhite@kde.state.ky.us or phone (502) 564-7168.



With the Right 'Connections,' Teachers Can Use KETS Technology at Home

By David Couch
Kentucky Department of Education

Editor's Note: David Couch is director of the Office of Education Technology's Division of System Support Services.

Despite efforts to spread the word, this may be one of the most advanced but under-used aspects of the Kentucky Education Technology System: Districts and schools can use KETS funds to provide at-home KETS/Internet access for their teachers, students and staff. When a dial-up router is installed in a district or school, teachers can make local phone calls from their homes to tap into their local fileserver and everything it offers.

This is a true win-win opportunity. Without leaving home, teachers can, for example, send and receive e-mail; compose or read reports; catch up on record keeping and organization; review or record data such as test scores, grades, attendance and school finances; and view or modify the school Web site. Teachers who use technology at home are much more likely to develop the skills and confidence they need to use technology in their daily instruction, which benefits students. So everybody wins!

A home access system can be available to students, too. Students can dial in to continue classroom assignments, do homework, do research and exchange writings with other students. Another benefit: During nights and weekends, school or district technical support staff can dial in to identify and correct many network problems without having to leave home.

What about cost? A school or district office can provide home access to faculty, staff and students for a cost ranging from \$1,300 to \$2,000, payable with KETS funds. This includes the cost of one dial-up router and two to four high-speed modems per school or district office. By using existing phone lines that are not used at night, the school or district office can avoid the cost of additional phone lines. While connecting from home to the school's dial-up router, the staff member will need to use a modern computer (ideally with Windows 95 or MacOS 7.6) and a 28.8 bps modem for the best results.

Home access can save money for those who use it. The state has paid for unlimited Internet usage for teachers whether they are at home or school, so it makes sense for teachers working at home to take advantage of this free access. While teachers may want to subscribe to a commercial provider such as America Online, CompuServe, Prodigy or MSN for personal on-line activities, having free access through their school or district permits them to do school-related work on line without paying the long-distance phone charges many rural

customers must pay to link with the commercial service providers.

Because home access offers so many benefits, KETS will pay for technology that supports dial-in use for students and teachers. In fact, the KETS program encourages schools to buy laptop computers rather than standard desktop units for teachers. Supplemented by a standard-sized monitor for classroom use, laptops let teachers be more mobile and continue working on instructional units, research or record keeping if they wish, even when they are not at school.

For More Information

- Visit the Department of Education Web site (<http://www.kde.state.ky.us>) and click on "Technology."
- Talk with your district technology coordinator or the KETS coordinator at a Department of Education regional service center.
- Send an e-mail inquiry to dcouch@kde.state.ky.us on the Internet.

Speaking From Experience . . .

Mary Ann Parrott of Middlesboro Middle School reports that her district's administration supports increased use and access to new technologies by students, teachers and the community. She shares these comments about her experience with home KETS access:

"Being a library media specialist and school technology coordinator, I needed and wanted home access not only to the KETS system but to our school's local area network. Our school does not yet have a dial-up router, but I have access using PCAnywhere software, the phone line to the school library and a couple of modems.

"I like the convenience and the cost (no monthly fees), even though my older home computer and 14.4 modem means a slow connection. From home I check my e-mail, update library files, update the school's homepage on the World Wide Web, explore and research on the Web and perform other tasks.

"If we want teachers to integrate technology into their lessons, they must have home access, because home is where they do their planning. The teachers at my school who have a home computer and Internet access are the ones who use technology the most with students in the classroom and the library."

Mary Ann Parrott
Library Media Specialist, School Technology Coordinator and
Instructional Technology Leader at Middlesboro Middle School
mparrott@msmail.mms.mboro.k12.ky.us
(606) 248-9420

What to Do If You're Not 'Plugged In'

By Lisa Y. Gross
Kentucky Department of Education

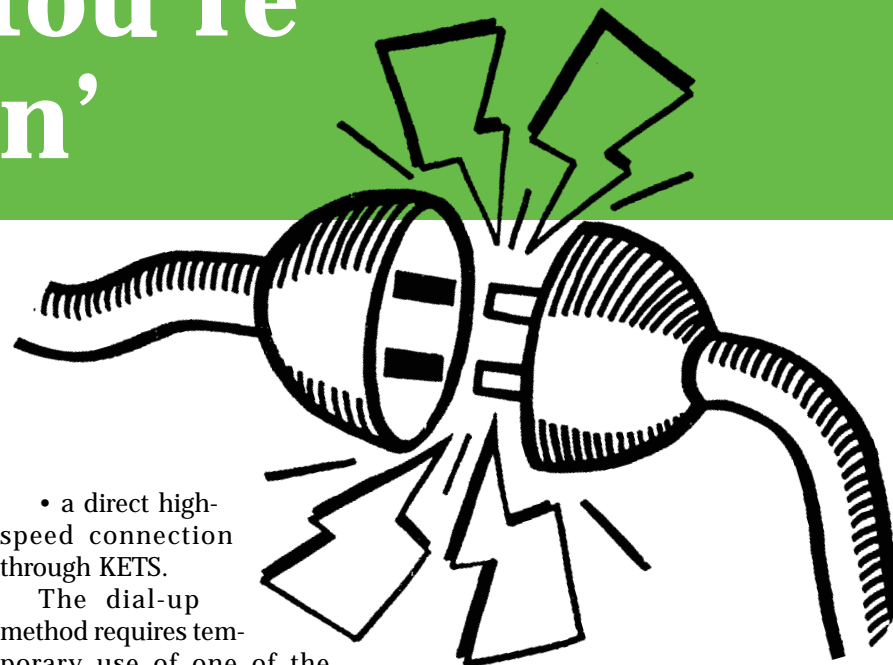
With all the talk about Kentucky's education technology system, it's easy to forget that some public school educators do not yet have an on ramp to the information superhighway. They have no Internet, no e-mail, none of the things many teachers, principals, students and parents now take for granted.

By the end of September, all but 25 percent of Kentucky's schools will be "plugged in" — connected to the outside world through technology available from the Kentucky Education Technology System. The "unplugged" schools may be internally networked,

with computers in classrooms or libraries set up to "talk" with each other, but they have no access to external information.

If your school is in that 25 percent, help is available — and right in your own backyard. It all starts at the local level with the school technology committee and the district technology coordinator. The committee can do a needs assessment to determine what will benefit teachers and students, then go to the district technology coordinator with a proposal. The coordinator then gets in touch with the department's Office of Education Technology to choose one of two ways to get connected:

- a direct high-speed connection through KETS.
- toll-free dial-up access through the district's or state's dial-up router



- a direct high-speed connection through KETS.

The dial-up method requires temporary use of one of the school's existing dedicated phone lines. Plug that line into a computer's modem to gain access to the Internet. Once off line, return the phone line to the school's standard phone connection or fax machine. If your district office has a dial-up router, your school can use the router for Internet/e-mail access. If not, your school can temporarily use the Department of Education dial-up router, which provides dial-up Internet/e-mail access free of charge 24 hours a day to "unconnected" schools with department accounts and appropriate computer hardware.

Dial-up access can be slow and is considered a temporary option. The ideal connection is via the state technology system's high-speed communication lines. The advantages are many, including a response 24 to 1,000 times faster than that of a regular phone line.

For example, bringing down the Apollo 13 accident report from NASA's Web page to a classroom computer takes five minutes through a dial-up connection but only five seconds with a high-speed connection. Also, the high-speed connection eliminates the need to tie up one of the school's dedicated phone lines and allows for Internet and e-mail access at multiple workstations in many classrooms, not just one computer at a time.

Until high-speed lines are installed, dial-up service can be a way to introduce administrators, parents, teachers and students to the advantages of on-line services.

Editor's Note: District technology coordinators have details about dial-up access and can request this service for a school by e-mailing David Couch, director of system support services, at dcouch@kde.state.ky.us.

Why Get Connected?

Carolyn Fleming, instructional technology leader at James E. Bazzell Middle School in Allen County, has used the dial-up service for the past few years to enhance curriculum and provide materials for students. She said the pros definitely outweigh the cons.

"E-mail is an invaluable teaching tool," she said. "Faculty and students can have access to people worldwide. I can e-mail anyone anywhere in the world, and our students have access to a wide assortment of experts everywhere."

"As far as the connection to the Internet, I can tell you there is no way that I, as a school media specialist, could supply our kids with all the information they need through books and handouts. Our world of learning is so huge now that I can't even find things in print that would help them. The Internet has pictures and other resources that can be incorporated into a lesson."

Fleming suggests using the properties of e-mail to add pizzazz to writing assignments. Teachers may place student writing pieces in a public folder, enabling other students — locally or statewide — to do peer editing. Older students can make comments on younger students' work, which may be helpful to both groups. Students also can use shared folders as bulletin boards for announcements, articles and other items of interest. This could lead to any number of projects, including a school or district newsletter produced by students.



Resources for Learning More About Using Technology in Schools

ONLINE HELP

- ASCD "Only the Best Web"

The Department of Education offers educators free limited-time access to this "members only" site from the Association for Supervision and Curriculum Development. To sign up, send a request to your district technology coordinator. Provide an I.D. (usually your first initial and last name) and specify a password. You'll receive access verification.

- Software review sites on the Web — Please see Page 5 for online resources for evaluating computer software.

- Instructional Technology Leaders/Library Media Specialists On Line — Trained educators help with strategies for using technology for instruction and learning. For details, call your region's KETS coordinator.

BOOKS

- "Plugging In: Choosing and Using Education Technology" — for district or school self-analysis of technology applications. Available for purchase from the Council for Educational Development and Research, (202) 223-1593. Free of charge at <http://www.ncrel.org/sdrs/edtalk/toc.htm> on the World Wide Web.

- "The Nearness of You" — short, teacher-written essays about using e-mail, the Web and other aspects of computer networking to teach writing. Order for \$16.95 from Teachers and Writers Collaborative, 5 Union Square West, New York, NY 10003-3006; fax (212) 675-0171.

- "Technology: Indicators of Quality Information Technology Systems in K-12 Schools" — how to determine if your district or school is getting its money's worth in technology and set goals for im-

provement. Source: National Study of School Evaluation, 1699 East Woodfield Road, Suite 406, Schaumburg, IL 60173; (847) 995-9080; fax (847) 995-9088.

HUMAN HELPERS

- School Technology Coordinators — Each school has been asked to identify a lead person for making technology work for the school.

- District Technology Coordinators — There's one in every school district.

- KETS Coordinators — These technology professionals are based in Department of Education regional service centers.

Region 1: Brenda Nix, (502) 762-3217 or bnix@kde.state.ky.us

Region 2: C.J. Shepard, (502) 745-6550 or cshepard@kde.state.ky.us

Region 3: Mary Grace Jaeger, (502) 485-3010 or mjaeger1@lyn1.jefferson.k12.ky.us

Region 4: Charlotte Chowning, (606) 292-6778 or cchownin@kde.state.ky.us

Region 5: Bob Fortney, (606) 257-4907 or bfortney@kde.state.ky.us

Region 6: Diana Creasy, (606) 523-9821 or dcreasy@kde.state.ky.us

Region 7: Joyce Hackney, (606) 783-5372 or jhackney@kde.state.ky.us

Region 8: Pat Johnson, (606) 886-0205 or pjohnson@kde.state.ky.us

- Frankfort Office — all at (502) 564-7168 unless otherwise noted:

- *Jana Hickey, jhickey@kde.state.ky.us (academic villages)

- *Tim Smith, wtsmith@kde.state.ky.us (instructional technology leaders)

- *Jackie White, jwhite@kde.state.ky.us (software, electronic instructional materials and library media centers)

- *John Williamson, jwilliam@kde.state.ky.us (Student Technology Leadership Program)

- * Terri DeYong, (502) 564-2020, ext. 237; tdeyong@kde.state.ky.us (information on dial-up, toll-free access to the Internet for schools not connected with KETS; information on e-mail training for administrators)

- * Lydia Wells Sledge, director, Division of Customer Support Services, lsledge@kde.state.ky.us

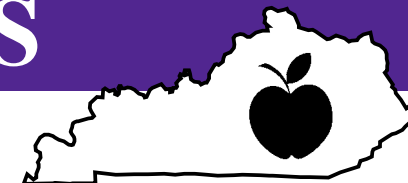
- * Don Coffman, associate commissioner, Office of Education Technology, (502) 564-6900 or dcoffman@kde.state.ky.us

MISCELLANEOUS

- Textbook funds can be used to buy specific, state-adopted software titles. See <http://www.kde.state.ky.us/edtech/EIM.html> on the Web; consult your district's technology or textbook coordinator; call Jackie White at (502) 564-7168; or e-mail jwhite@kde.state.ky.us.

- Major sessions of the 1997 Kentucky Education Technology Conference are available on audio cassettes. For titles, prices and ordering information, visit <http://www.kde.state.ky.us/ketc/ketcass.html> on the Internet; write to Kentucky Sound, 809 Glenbarr Place, Louisville, KY 40243; e-mail glenbastin@aol.com; or phone Glen Bastin at (502) 245-3628.





Department to Study School Council Practices of Kentucky's Most Successful Schools

A study to be conducted this year by the Division of School-Based Decision Making will gather information on the shared decision making process used in high-performing schools with councils. Staff will conduct on-site visits in more than 50 schools that have maintained high KIRIS test scores and have been using school-based decision making for at least the past four years.

Results of the study will be used to create a profile of successful practices in shared decision making. The final report and profile will be available in early 1998.

Repeat Performance . . .

Because of a printing error, words and numbers near the bottom of this graphic were not readable in the August issue. *Kentucky Teacher* provides the complete graphic again. For more information about Kentucky's new graduation requirements, e-mail Pat Hurt at phurt@kde.state.ky.us or phone (502) 564-6880.

Kentucky High School Graduation Requirements

Approved July 2, 1997, by the General Assembly's Interim Joint Committee on Education

Subject Area	Units Now Required	Credits and Content Courses Required in 2002
Language Arts	4	4 English I, II, III, IV
Social Studies (includes U.S. History)	2	3 Incorporating U.S. History, Economics, Government, World Geography, World Civilization
Mathematics	3	3 Algebra I, Geometry, one elective
Science	2	3 Including life science, physical science, earth and space science
Health	1/2	1/2 Health
Physical Education	1/2	1/2 Physical Education
Visual and Performing Arts		1 History and appreciation of visual and performing arts or another arts course that incorporates such content
Total Required Units/Credits	12	15
Total Electives	8	7
GRAND TOTAL	20	22

Note: A local school board may substitute an integrated, applied, interdisciplinary or higher-level course for a required course if the alternative course provides rigorous content and addresses the same applicable components of 703 KAR 4:060.

Individual Graduation Plan: Each student shall complete a four-year plan emphasizing career goals and courses a student intends to take. The plan is revised annually by parents and school advisors, and alterations may be made.

Reidy Leaving Assessment Post

Ed Reidy, who for six years has overseen the Kentucky Instructional Results Information System (KIRIS) assessment, announced on Aug. 15 that he will step down around the end of the year as the Department of Education's deputy commissioner for learning results services. Reidy will stay in his post through the completion of reporting on the spring 1997 KIRIS tests and the transition to new testing contractors.

"Kentucky's dream to reform its schools so that each and every child learns to high standards is a challenge to the nation," said Reidy. Working with so many outstanding

citizens and educators to make that dream real has changed my life. My thanks to all for the opportunity to serve with you in this most important work."

Commissioner of Education Bill Cody said he was disappointed by Reidy's announcement and noted Reidy's long-standing commitment to education. "Ed's dedication and commitment to Kentucky's reform effort and, more importantly, to Kentucky's children are unparalleled," said Cody. This man has dedicated his life to public service and specifically to serving children. We all owe him a debt of thanks."

USDE Recognizes Teacher Shortages in 12 Staffing Areas in Kentucky

In response to a request from the Kentucky Department of Education, the U.S. Department of Education recently designated teacher shortages in 12 staffing areas in Kentucky for the 1997-98 school year. The federal designation means that educators may qualify for certain benefits if they teach in these shortage areas:

- educable mentally disabled (K-12)
- emotionally disturbed (K-12)
- foreign languages (secondary)
- learning disabled (K-12)
- middle school English (5-8)
- middle school mathematics (5-9)
- middle school science (5-9)
- middle school social studies (5-9)
- physically disabled (K-12)
- school media librarian (K-12)
- technology education (5-12)
- trainable mentally disabled (K-12)

Teachers working in these areas may apply to defer repayment of loans granted under the Federal Stafford and Federal Supplemental Loans for Students programs. To get details and conditions, phone the Federal Student Aid Hotline at (800) 4FED-AID.

Paul Douglas Scholarship recipients now teaching in shortage areas may be eligible for reductions in the teaching obligations they made under the conditions of the scholarship. For more information, contact the college or university that awarded the scholarship.

Principals must certify that teachers in their schools who apply for these benefits have taught in the federally designated teacher shortage areas.

Professional Development on KET's Star Channels

Kentucky Educational Television will offer the following teacher professional development seminars on its Star Channels network during October and November. Because supporting grants have expired, KET must now charge subscription fees to defray production costs for these seminars.

Schools or districts may subscribe to single programs or the year's entire schedule. Only paid subscribers may use KET professional development programming. Unauthorized use, taping or distribution violates federal copyright law. For information about how to subscribe, call KET Professional Development toll-free at (800) 432-0951.

For additional KET professional development information, go to KET's home page (www.ket.org) on the World Wide Web.

Here's a look at seminars planned for October and November:

OCTOBER

- Evaluating Math Materials (five programs)
- A Year in a High School Writing Classroom (first of four programs)
- Evaluating Your Science Program
- The Writing Portfolio in the Latin Classroom
- The Teaching-Learning Process (first of five programs)
- Gingerbread Man Economics Education (primary)
- Special Topics in Writing: Persuasive Writing, Personal Writing and Feature Articles (three programs)

NOVEMBER

- Technical Writing: Science, Math, Social Studies (three programs)
- Exploring Our World Through the Arts II (first of four programs)
- National Standards for Foreign Language Learning (first of three programs)
- Improving Middle School Science Scores (two programs)
- Primary Writing (first of three programs)

Free From KET

These Star Channels programs are free to all Kentucky schools:

- Peaceful Solutions — From WNET/New York: Four 30-minute professional development programs on violence prevention and conflict resolution. Two-hour block feed for all four programs starts at 3:30 p.m. ET (2:30 CT) Oct. 10 on Star Channels 709 and 710.

- Mathematics: What's the Big Idea? — This eight-part workshop series from the Annenberg/CPB Channel for P-8 teachers of mathematics is scheduled for Nov. 7, 14, 21 and Dec. 5, 12, 15, 16, 17 on Star Channel 709.

Department Schedules Free Programs for Primary Educators

The Department of Education offers the following professional development programs free of charge on Star Channels 709 and 710. All programs begin at 4 p.m. ET (3 p.m. CT) and are a maximum 90 minutes in length.

The programs scheduled for October present strategies for ensuring continuous academic progress for students from the time they enter school at age 5 until they are prepared for success in 4th grade.

- Oct. 6 — Continuous Progress Through Qualitative Reporting
- Oct. 13 — Continuous Progress Through Parent Involvement
- Oct. 13 — Continuous Progress Through Professional Teamwork
- Oct. 20 — Continuous Progress Through Authentic Assessment and Development-Appropriate Practices
- Oct. 27 — Continuous Progress in Kentucky's Primary Programs

Preregistration is not required for Department of Education-produced programs broadcast on KET's Star Channels. Video copies are available for \$15 per tape from the Division of Media Services, 500 Mero St., Frankfort, KY 40601; phone (502) 564-2000.

Premiering This Month: All-New "Inside Kentucky Schools"

Only the program's name will be the same when veteran broadcaster Pia Cummings takes over this month as host of the Kentucky Department of Education's 30-minute video magazine, "Inside Kentucky Schools." The twice-monthly program will feature a fast-paced blend of Kentucky education news and features, with some segments produced by students. (See Page 15.)

The first installment of "Inside Kentucky Schools" will feature interviews with Education Commissioner Bill Cody and Kentucky Board of Education Chairman Joe Kelly; the first day at school as seen through the eyes of 6-year-old Charlie Crowe; and features on education activities in Powell, Lee and Hancock counties.

To submit suggestions for future programs, phone (800) 533-5372 or e-mail InsideKentuckySchools@kde.state.ky.us on the Internet.



Pia Cummings debuts as the host of "Inside Kentucky Schools" on Sept. 13. Cummings is a former Louisville WAVE-TV news anchor.

When to Watch

- Premiering Sept. 13 and airing the second and fourth Saturdays of every month at noon ET (11:00 CT) on KET's open broadcast channels (the KET you watch at home)
- In schools on KET's Star Channels 709 and 710 at 4 p.m. ET (3 p.m. CT) on Mondays following the Saturday broadcasts

Two Teachers Win McAuliffe Fellowships

Two Kentucky teachers have been selected 1996 and 1997 Christa McAuliffe Fellows.

• **William F. Hill**, a mathematics teacher at Casey County High School, received the fellowship for Curriculum Alignment with Mathematics and Science Integration, a project that will enable him to act as a resource teacher for grades 5 through 12. Hill will implement integrated activities throughout the mathematics and science curricula of schools in the region and develop open-response items and portfolio activities.

• **Ruth M. Casey**, a mathematics teacher at Franklin County High School, received the fellowship for Developing Strategies for Success and Leadership in 9-12 Mathematics Education, a project in which she will develop materials for a workshop for high school mathematics teachers to focus on classroom strategies associated with national mathematics standards and state's academic expectations and core content.

THE Bulletin Board

Exceptional Children Conference Set

Make plans to attend the 33rd Conference on Programs for Exceptional Children, sponsored by the Division of Exceptional Children Services. The conference is scheduled for Nov. 23-26 at the Galt House East in Louisville. The theme is "Inclusive Education: The Winning Ticket in Kentucky." Judith Heumann, assistant secretary of the U.S. Office of Special Education and Rehabilitative Services, and TV and film star Christopher Reeve are invited speakers.

CONTACT: Barbara Locker or Artye Dulaney, 8th Floor, 500 Mero St., Frankfort, KY 40601; (502) 564-4970; blocker@kde.state.ky.us or adulaney@kde.state.ky.us

By Lisa York Gross
Kentucky Department of Education

Community Educators Invited to Six Training Sessions

The Kentucky Community Education Association and the Kentucky Department of Education will host six training sessions this fall for new and experienced community education directors. Sessions will be open to all community educators. The following schedule is tentative:

- Sept. 23 — Woodford County
- Sept. 25 — Jessamine County
- Oct. 8 — Morgan County
- Oct. 10 — Montgomery County
- Nov. 10 — Bowling Green/Warren County
- Nov. 12 — Owensboro/Daviess County

CONTACT: Joan Howard, 17th Floor, 500 Mero St., Frankfort, KY 40601; (502) 564-3678; jhoward@kde.state.ky.us

District ESS Coordinators to Meet

There will be a meeting for all district extended school services coordinators from 8:30 a.m. to 3 p.m. ET on Sept. 23 at the Holiday Inn North in Lexington. On the agenda are various issues such as ESS policies, the consolidated planning process and ESS "best practices." District coordinators will receive a copy of "Extended School Services Promising Practices Book, 1997" for each of their schools.

CONTACTS: Carole Kruse or Karen Whitehouse, 17th Floor, 500 Mero St., Frankfort, KY 40601; (502) 564-3678; ckruse@kde.state.ky.us or kwhiteho@kde.state.ky.us

Website Offers Resources on Challenging Behaviors

A new site on the World Wide Web provides information about students with challenging behaviors. The page also features links to related resources and intervention strategies. The site is a collaborative project of the Department of Education's Division of Exceptional Children Services and the Department of Special Education and Rehabilitation Counseling at the University of Kentucky. Find it at <http://www.state.ky.us/agencies/behave/homepage.html> on the Internet.

CONTACTS: Mike Waford or Laura McCullough, 8th Floor, 500 Mero St., Frankfort, KY 40601; (502) 564-4970; mwaford@kde.state.ky.us or lmccullo@kde.state.ky.us

Community Educators Announce National Conference

The National Community Education Association (NCEA) Conference is scheduled for Dec. 3-6 in Phoenix, Ariz. This year's theme will be "Education: A Community Affair."

CONTACT: ncea@ncea.com via e-mail or <http://www.idsonline.com/ncea> on the WorldWideWeb

Two Resources Support Writing Instruction

• **Publication** — In September, each Kentucky elementary principal will receive a copy of "Building the Foundation the WRITE WAY," the newest publication from the Kentucky Writing Program. Included are strategies, blackline masters, bibliographies and student samples to help primary and elementary classroom teachers guide students' development of the 4th-grade portfolio genres: personal narratives, feature articles, "how-to" articles and persuasive pieces. Details are available from Susan Miller, (502) 458-5322; itsue2@aol.com or smiller@kde.ky.state.us.

• **Conference** — The Northern Kentucky Writing Project's fall conference on writing across the curriculum is set for Nov. 1 at Northern Kentucky University. A keynote speaker will be Jacqueline Van Maarsen, author of "My Friend Anne Frank." Conference sessions will demonstrate how to incorporate Holocaust material into social studies and language arts curricula, writing prompts and using related themes in art, music and other media. For details, phone Nancy Kersell at (606) 572-6618 or Cathy Harvey, (606) 572-5632.

Coalition Offers School Volunteer Workshop

The Kentucky Coalition of School Volunteer Organizations will offer its "How to Establish and Maintain a Volunteer Program" workshop in nine locations this fall.

Sept. 19 Northern Kentucky
Sept. 26 Owensboro
Oct. 10 Richmond, Louisville, Somerset
Oct. 17 Morehead
Oct. 24 Murray, Hazard, Campbellsville

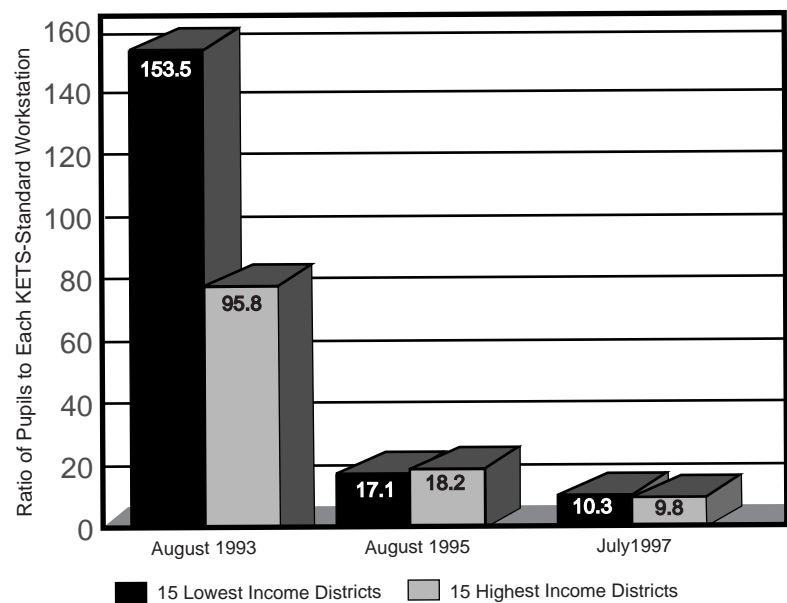
The coalition recommends the workshops for volunteers, teachers, principals and volunteer program coordinators. The group also will offer "Next Steps," an advanced workshop, on Nov. 14 in Bowling Green and Frankfort. This session offers teachers strategies for capitalizing on volunteers in the classroom.

CONTACTS: Nancy Rogers, (502) 692-1300; Nellie Gooden, (502) 651-3100

Technology and Education Equity

Computers meeting high Kentucky Education Technology Systems standards are accessible to more Kentucky students — including students in low-income districts — than ever before. The ratio of students to computers, once vastly different in the highest- and lowest-income districts, is now almost the same — and approaching the state goal of 6-to-1. For more good news about education technology in Kentucky, see Pages 5-12 in this issue.

Kentucky Education Technology System



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Kentucky Teacher

News for the Nation's Most Innovative Educators

SEPTEMBER 1997



AIMING HIGH — Sarah Trainor jumps to block a shot by her brother, Alex. Both Jefferson County students excel in several academic and extracurricular areas. Alex recently won a national Junior Olympics silver medal in tae kwon do. Sarah is the national elementary school student technology leader of the year for 1997. For more about students as technology leaders, see Page 7.

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